UNC CHARLOTTE
The WILLIAM STATES LEE COLLEGE *of* ENGINEERING

UNC Charlotte – Lee College of Engineering Senior Design Program

Senior Design Project Description

Company Name	*Kenny's Components, Inc*	**Date Submitted**	*11/22/2019*
Project Title	*Design of a safer race seat mounting system for 90° race seats* **(KENNY_SEAT)**	**Planned Starting Semester**	Spring 2020

Personnel

Typical teams will have 4-6 students, with engineering disciplines assigned based on the anticipated Scope of the Project.

Please provide your estimate of staffing in the below table. The Senior Design Committee will adjust as appropriate based on scope and discipline skills:

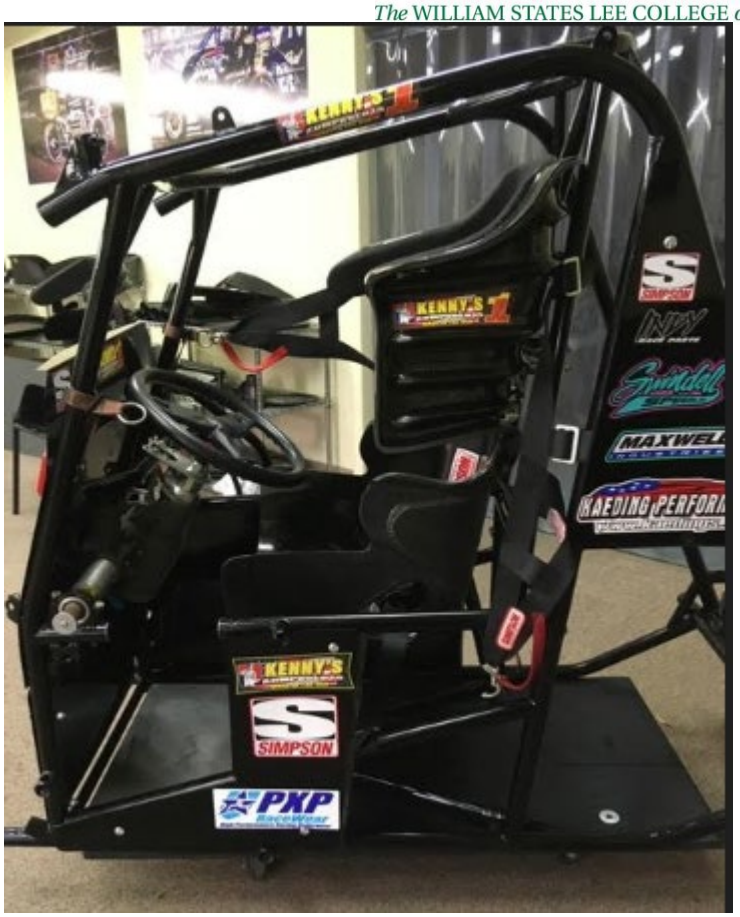
Discipline	Number	Discipline	Number
Mechanical	4	Electrical	
Computer		Systems	
Other ( )			

Company and Project Overview:

Kenny's Components, established in 2001, is a trusted manufacturer of carbon fiber parts for the racing community. One of the primary reasons for the use of carbon fiber in the manufacturing of race parts is the material's signature weave, with its legendary blend of strength, stiffness, and low weight. Carbon fiber is used in hoods, roofs, suspension components, strut bars, full chassis, body panels, and even decorative trim panels and racing seats.
Safety in racing is always at the forefront when a driver sits down in their race car. With safety in mind this project is intended to develop a safer mounting system for race cars that require a 90° race seat.

Project Requirements:

The objective of this project is to design a seat mounting system for race cars that are driver centered vehicles that require a driver to sit in a 90° position. These types of race cars are the Sprint Car, Midget as well as the Silver Crown.



In designing this project safety, weight and space must all be factored in. The cockpits of these cars are extremely confined so the design must take that into consideration. Race cars are designed to be as light as possible so any design needs to be lightweight but strong. The primary focus with this is safety. Drivers who sit at 90° are at more risk of suffering severe back trauma. The objective of this project is to lower that risk with the design of a safer mounting system.

Expected Deliverables/Results:

- A complete prototype of a safer 90° seat mounting system.

Disposition of Deliverables at the End of the Project:

Team to consult with ISL Director 1 week prior to Expo for direction on this.

List here any specific skills, requirements, specific courses, knowledge needed or suggested (If none please state none):

- Motorsports concentration projects